

ALABAMA SUPPLEMENTS TO THE
NATIONAL ENGINEERING FIELD HANDBOOK

CHAPTER 12. SPRINGS AND WELLS

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Springs and Seeps

Engineering notes for spring development are shown in Figure AL12-1.

SPRING DEVELOPMENT

A. Engineering Surveys for Design and Construction Layout (SCS-ENG-191 - Field Book)

1. Complete title page (SCS-ENG-28) with sketch of practice location.
2. Dimensions of pipelines, spring box, silt box, watering trough, and other pertinent parts and materials
3. Relative elevation of spring box outlet pipe and watering trough inlet and outlet pipe, and overflow discharge point.
4. Measurements for computing volumes of excavation, concrete, masonry, gravel, etc., that are cost share items.

B. Construction and Performance Check (SCS-ENG-191 - Field Book)

1. Elevations of inflow and outflow pipes for spring box, silt box, and watering trough
2. Measurement to verify concrete, excavation, and drain material volumes.
3. Treatment of disturbed areas.
4. Supporting statements and certification that practice as constructed does meet plans and specifications.

NOTE: To develop free flowing springs, you do not retain water in the field lines. However, to develop a seep spring you retain water in the field lines so as not to deplete the source.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SCD	Pike County	Date	12/6/77
Field Office	Troy		
Name	John Hunt		
Location: 3 mi. west of Troy on Hwy. 29 on right past River Bridge.			
Job Spring Development			
Design Survey	12/6/77	Const. Layout	12/8/77
Constr. Check	12/8/77	Other	
Dist. Agr. No.	361	Field No.	1
ACP No. I-45			

Figure AL12-1. Engineering notes for spring development.

(210-VI-NEM, Amend. AL6, October 2008)

[illegible]

John Hunt A - □ - E. Carr
Spring Development Ø - R. Hunt
Design Survey 12-6-77

16p nail in 6" black gum tree 75' N.E. of spring.

Spring head in bank.

15' from spring will be location of silt box.

Trough or tank will be approx. 50 feet from the silt box.

DESIGN DATA

Spring flow is approx. 5.6 P.M.
Cattle - 30 head
Trough capacity - 180 - 300 gallon

BILL OF MATERIALS

1 - 32' - well curb
1/2 - joint of 32" well curb
1 - 32" well curb lid
10' - 4" perforated plastic tubing (slots)
15' - 4" solid P.V.C. - plastic pipe
50' - 2" solid P.V.C. - plastic pipe
40' - 2" solid P.V.C. plastic pipe for trough drain
2 - bags cement
1 - roll #30 roofing felt
1 - man size concrete vault (280 gal.)
3 cu. yd. - concrete gravel (small)
1.6 cu. yd. - concrete

Figure AL12-1. Engineering notes for spring development.

AL12-7(4)

<i>Station</i>	<i>B. S.</i>	<i>H. I.</i>	<i>F. S or grade rod</i>	<i>Elev. or planned elev.</i>	
TBM 1	2.01	102.01		100.00	
0+00			4.6	97.4	
0+15			4.8	97.2	
			5.2	96.8	
			6.3	95.7	
0+65			5.4	96.6	
			5.5	96.5	
1+15			6.8	9.2	
TBM 1			2.01	100.00	100.00
				0.00	E.C.
SCS-ENG-29 (2-80)					

John Hunt		7	-	□	-	E. Carr
Spring Development			Ø		-	R. Hunt
Const. Check Survey						12-8-77
16p nail in 6" black gum tree 75' N.E. of spring.						
Spring Head		4.6				
Silt box inlet		4.8				
Silt box outlet		5.2				
Silt box bottom		6.3				
Inlet to trough		5.4				
Outlet from trough		5.4				
Approx. 50' down stream from trough						
Constuction meets plans and specifications						
12-8-77 E. Carr, Cons. Tech.						
Spring was fenced. 12-14-77						
E.R. Carr, Cons. Tech.						